amides

- 1. Derivatives of oxoacids $R_k E(=0)_l(OH)_m$ $(l \neq 0)$ in which an acidic hydroxy group has been replaced by an amino or substituted amino group. Chalcogen replacement analogues are called thio-, seleno- and telluro-amides. Compounds having one, two or three acyl groups on a given nitrogen are generically included and may be designated as primary, secondary and tertiary amides, respectively, e.g. PhC(=O)NH2 benzamide, CH3S(=O)2NMe2 N,N-dimethylmethanesulfonamide, [RC(=O)]2NH secondary amides (see imides), [RC(=O)]3N tertiary amides, PhP(=O)(OH)NH2 phenylphosphonamidic acid.
- i. Amides with NH2, NHR and NR2 groups should not be distinguished by means of the terms primary, secondary and tertiary.
- ii. Derivatives of certain acidic compounds $R_n E(OH)_m$, where E is not carbon (e.g. sulfenic acids, RSOH, phosphinous acids, R2POH) having the structure R_nE(NR₂)_m may be named as amides but do not belong to the class amides proper, e.g. CH3CH2SNH2 ethanesulfenamide or ethylsulfanylamine.
- 2. The term applies also to metal derivatives of ammonia and amines, in which a cation replaces a hydrogen atom on nitrogen. Such compounds are also called azanides, e.g. LiN(Pr)2 lithium diisopropylamide, synonym lithium diisopropylazanide.

See also carboxamides, lactams, peptides, phosphoramides, sulfonamides.

1995, 67, 1315; see also 1993, 65, 1357

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oximes

Compounds of structure R₂C=NOH derived from condensation of *aldehydes* or *ketones* with hydroxylamine. Oximes from aldehydes may be called aldoximes; those from ketones may be called ketoximes. 1995, 67, 1354

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